UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

CHURCH & DWIGHT CO., INC., Plaintiff, - against - THE CLOROX COMPANY, Defendant.	CIVIL ACTION NO.: 11 Civ. 1865 (JSR) **Declaration of Dr. Daniel Ennis**

I, Daniel Ennis, declare:

1. I submit this declaration to respond to three points Clorox's experts raised for the first time after my direct testimony. First, the Sensory Spectrum scale is not a ratio scale nor is it recognized as such by any of the professional associations with a scientific interest in sensory evaluation. Ms. Civille acknowledged that the Sensory Spectrum scale has not been recognized as a ratio scale by ASTM or any "arbiter of science." Tr. 137:19-138:4. Nor is their any literature in the field that supports the theory that category scales like the Sensory Spectrum scale are ratio scales. *See*, for example, Ex. 1 hereto, S.S. Stevens, Psychophysics, at 134-35. Indeed, even Ms. Civille's and Mr. Carr's book (Ex. 2, at 56) acknowledges that category scales are not generally considered ratio scales.

2. A category scale does not become a ratio scale merely by fiat. Ms. Civille has neither persuaded the community of professionals with scientific interest in sensory evaluation that her scale is a ratio, nor has she provided any foundation in this case to demonstrate that her scale is a ratio scale.

3. Second, Mr. Carr testified that the 44 uniform zero ratings in the carbon jar did not surprise him because the variation we both have acknowledged to be inherent in sensory ratings does not exist in the absence of a stimulus, such as a booth with no malodor. He is completely wrong, as the literature recognizes. Sensory perceptions are affected both by stimuli and by factors unrelated to the stimuli, such as response bias and neural noise. Neural noise is present even when there is no stimulus. Thus perceptual variation occurs with or without a stimulus. *See* Exs. 3-5 (highlighted portions). My testimony was correct that on a scale with as many points as the Spectrum scale, the total absence of variability in the Jar Test for the carbon sample, coupled with the variability for the baking soda and cat waste samples, is inexplicable and compels the conclusion that something was amiss.

4. Finally, Mr. Carr was also wrong in stating that I incorrectly calculated the CV values referred to in my declaration. My calculations were correct. He only calculated the CV for baking soda in the first jar test. Using the same procedure, I calculated it for carbon in that test, and for the Fresh Step samples in Clorox's litter test using the same sensory panels. All of the samples give vastly larger CV values than the 3-7% range Mr. Carr says is appropriate. And, if CV was an appropriate statistical test for any of these studies, it should have been part of the test protocol. But it was not. In short, Mr. Carr made an after-the-fact decision to use CV in order to show reasonable levels of variation in the second Jar Test, but that method instead demonstrates large levels of variation by the Clorox sensory panelists on samples that he did not select to test.

I declare under the penalty of perjury under the laws of the United States that the foregoing is true and correct.

Dated: Kiawah Island, South Carolina
June 29, 2011

Daniel M. Ennis